

# Extinguishing Control Panel

## BC06-1EXT, BC06-2EXT

- For application in single-zone extinguishing systems
- 4 detector zones in conventional technology
- Differentiation between the activation of automatic detectors and manual call points on the same detector line
- Clear display and operation on the panel front
- Tested to EN 54-2, -4, EN 12094-1 by VdS



Fire is a permanent threat to life and property. Therefore, immediate response to a fire is imperative. The main objective of the Fire Detection Control Panel Series BC06 is to alarm and to react in time and, consequently, save lives and protect property. For decades LST have focused their aims to undertaking unrivaled efforts in order to realise new innovations in the security area. Research, development and production are loca-

ted within LST premises, thus guaranteeing flexible and reliable individual solutions.

Using a powerful processor system and a large number of integrated functions, the Fire/Extinguishing Control Panels Series BC06 ensure topmost efficiency and speed – prerequisites for saving lives and minimising damage to property.

## Description

Already in the basic version the combined Fire/Extinguishing Control Panels BC06-1EXT and BC06-2EXT are equipped with four detector lines and the Extinguishing Board EXB1-1 and, owing to its sophisticated factory settings, are immediately ready for operation. This allows for quick and efficient application of the product.

The conventional technology allows for the connection of automatic and non-automatic fire detectors as well as a wide range of special detectors with contact output. Alarms from manual call points and from automatic detectors that are connected together to one detector line can be differentiated and thus evaluated differently by the fire/extinguishing control panel, by means of an optional coding module.

Thanks to the two auxiliary inputs whose parameters can be freely set as well as the eight open-collector outputs, manifold tasks in the field of fire alarm technology can be realised.

The optional evacuation function serves for the activation of alarming devices independent from activated alarms.

Thanks to the integrated extinguishing module, the BC06 can be used as an extinguishing control panel according to EN 12094-1 with one flooding zone. The module provides appropriate inputs and outputs for controlling and monitoring a flooding zone. The display and operating elements that are necessary for the status indication and the operation of the extinguishing module are integrated into the keypad.

A printer for the event log can be connected via the optional Serial Interface Modul SIM06-1.

The Fire/Extinguishing Control Panel BC06-2EXT differs from the BC06-1EXT by the additionally integrated 4-digit electronic alarm counter.



0786-CPD-20300

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## Clear concept

The combined Fire/Extinguishing Control Panels BC06-1EXT and BC06-2EXT have been designed for use in small fire detection and extinguishing control systems with one flooding zone, and already in the basic version they provide the following features:

- 4 conventional detector lines permit the connection of automatic detectors and manual call points in conventional technology as well as special detectors with contact output. Each detector line can be individually parameterised as detector zone for fire alarms, as detector zone for fault messages or as input for a disable device or a flooding switch.
- If automatic detectors and manual call points are connected together on one detector line, their activations can be differentiated and evaluated differently by the control panel. To this aim, the manual call points must be equipped with a special coding module.
- Two individually monitored, separately actuated siren outputs with an output current of 1A and 0.5A respectively, allow for the connection of acoustic or optical signalling devices.
- Dry relay outputs indicate the alarm and fault conditions of the control panel. In addition, 8 open-collector outputs whose parameters can be freely set as well as two auxiliary inputs are available for general control tasks.
- The Extinguishing Board EXB1-1, which is already installed in the control panel, allows for the actuation of an extinguishing system according to EN 12094-1 with one flooding zone. In the course of commissioning the control panel, the required functions and delay times are parameterised according to the used extinguishing agent as well as the country specific regulations.  
The extinguishing board provides 8 further open-collector outputs with fixed preset functions.
- Logical combinations of detector zones for the activation of external alarming devices and for the actuation of the extinguishing system allow for a high degree of flexibility. Thus, no additional expenses arise for external relays or logic gates. Thanks to the wide range of parameterisation possibilities, individual requirements even under the most difficult ambient conditions can be combined into a reasonable fire protection strategy.

- All events that occur can be output in English via a connected printer or PC. Thus, all system conditions and user operations that occurred are documented in a clearly laid out way.
- The Fire/Extinguishing Control Panel BC06-2EXT includes a 4-digit, non-resettable alarm counter which indicates the total number of alarms by means of an LC display in the operating field.
- A possible breakdown of the central processing board is securely detected and displayed by the system.
- The processor-monitored power supply ensures permanent supervision and charging of the batteries. This way, even during a power failure the untroubled and uninterrupted operation (for more than 72 hours depending on the design of the batteries) is guaranteed.
- Three hierarchised authorization levels for operation and parameterisation provide a high degree of security against unauthorized access.
- The control panel is easily operated and the parameters are set via the display and operating field. LEDs indicate the current menu and the selected parameter. This facilitates user guidance during commissioning, operation and maintenance.
- The initial commissioning of the control panel is significantly facilitated by the practical factory settings. This guarantees easy and time-saving commissioning.

The extremely flat wall-mount cabinet allows for an easy mounting in virtually any place of the building. Thanks to its modern, ageless design, architectural requirements and demands of the respective regulations are ideally combined. Thanks to the compact design, the standard case can accommodate batteries with up to 7Ah also in the event of full extension (central processing board, extinguishing board and an auxiliary module) of the control panel. Series BC06 thus stands for modularity and easy expansion.

This product complies with all relevant standards of EN 54 and EN 12094-1 and is tested by the VdS. LST's high quality level is secured by a permanently monitored quality management system certified to ISO 9001.

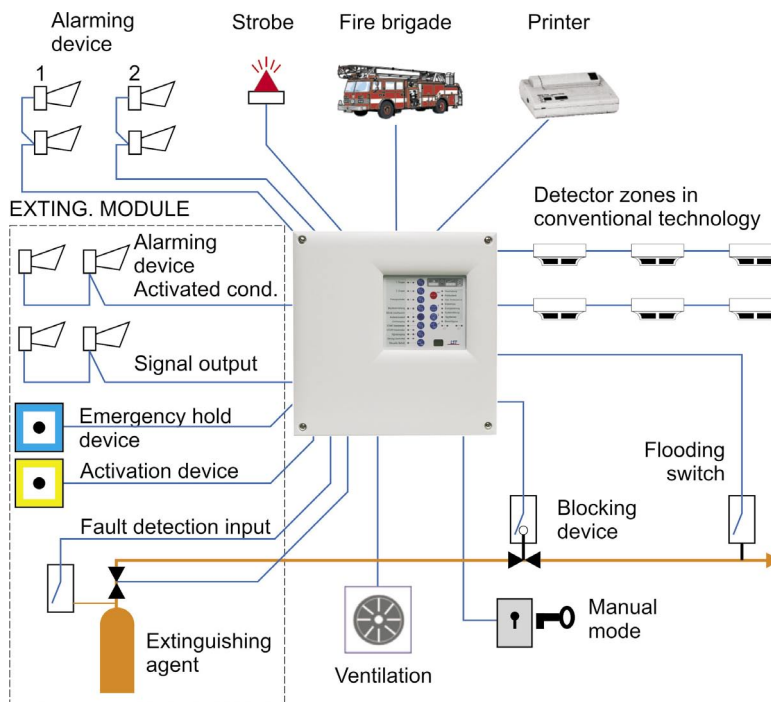
## Extinguishing control

By means of the Extinguishing Board EXB1-1, the Fire/Extinguishing Control Panels BC06-1EXT and BC06-2EXT provide numerous inputs and outputs with fixed or parameterisable function. With that, the following components of an extinguishing system can be actuated and monitored in accordance with EN 12094-1:

- Activation devices for the manual activation of the flooding process
- Emergency hold devices for the manual delay of the flooding process
- Emergency abort devices for aborting the flooding process
- Fault detection devices for monitoring the compon-

ents of the extinguishing system

- A disable device for the indication of the mechanical blocking of the extinguishing agent's network
- A flooding switch that indicates the flow of the extinguishing agent
- A device for switching to the manual mode – for example, a key switch
- Signalling devices for indicating the activated condition and the released condition
- The control device for activating the flooding – for example, a solenoid valve
- Auxiliary outputs for actuating flaps or for turning off devices and systems



## Display and operating elements

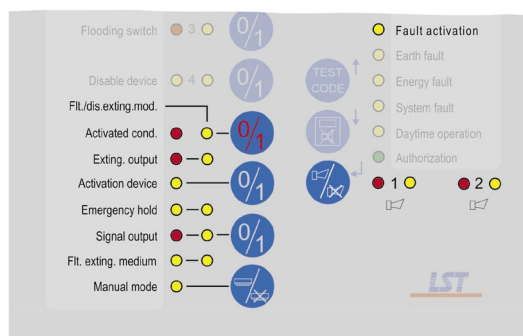
The operating field of the Fire/Extinguishing Control Panels BC06-1EXT and BC06-2EXT provides 13 LEDs for displaying the operating conditions and 4 buttons for the operation of the extinguishing system.

The LEDs indicate the following operating conditions:

- Pre-activation/activation of the extinguishing module
- Released condition of the extinguishing output
- Extinguishing output fault
- Extinguishing module fault/disablement
- Extinguishing medium fault/fault of the fault input
- Emergency hold/emergency hold device fault
- Activation device fault/disablement
- Signal output activated/signal output faulty/disabled
- Manual mode of the extinguishing module
- Fault of the activated condition output

The buttons on the operating field have the following functions:

- Disable/enable the extinguishing module
- Start/terminate the manual mode
- Disable/enable the activation devices
- Disable/enable the signal output



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## Functions of EN 12094-1

All mandatory functions of EN 12094-1 are integrated into the Fire/Extinguishing Control Panels BC06-1EXT and BC06-2EXT. Furthermore, the most important optional functions of this standard are supported:

- Parameterisable pre-discharge-warning time for the delay of the activation
- Detector zone „extinguishing medium active“ selectable for detecting the flow of the extinguishing medium
- Monitoring of components of the extinguishing system
- Input for connection of an emergency hold device

- Monitoring of a disable device
- Parameterisable flooding time
- Possibility to switch to the „manual only mode“
- Transmission of the triggering signal to further actuations within the extinguishing system – for example, warning devices
- Transmission of the triggering signal to further actuations outside the extinguishing system – for example, for turning off the air conditioning system
- Emergency abort device can be connected
- Activation of alarming devices with different alarm signals

## Specifications

Mains voltage	230VAC +10/-20%, 47...63Hz
Output/nominal voltage	typ. 27.6VDC
Output current	max. 2.2A
Output current siren outputs output 1 output 2 (the sum of the currents of the signalling devices that are connected to the two outputs must not exceed 1A!)	max. 1A max. 0.5A
Output current, extinguishing output	max. 1A
Output current, activated condition output/signal output	max. 500mA per output
Own current consumption (incl. extinguishing board) at 24V	typ. 80mA (without optional componentries, line termination 5.6kΩ) typ. 65mA (without optional componentries, line termination 47μF)
Line voltage	typ. 20V (line termination 5.6kΩ) typ. 23V (line termination 47μF)
Line current without fire detectors	typ. 3.7mA (line termination 5.6kΩ) typ. 0mA (line termination 47μF)
Line termination	5.6kΩ or 47μF
Line resistance	max. 50Ω per core
Ambient temperature	-5°C to +50°C
Relative humidity	max. 95% (no condensation)
Dimensions W × H × D	330 × 330 × 90 (mm)
Colour	grey-white, RAL 9002
Weight without batteries	approx. 3kg
Approvals	0786-CPD-20300 VdS pending

### Fire Detection Control Panel BC06-1EXT

Order number	210223
Order name	Fire Detection Control Panel BC06-1EXT/INT1

### Fire Detection Control Panel BC06-2EXT

Order number	210224
Order name	Fire Detection Control Panel BC06-2EXT/INT1